

### ABSTRACT OF THE DISCLOSURE

A crosslinkable elastomeric composition includes at least one diene elastomeric polymer and at least one organic quaternary ammonium salt. The at least one diene elastomeric polymer may have a glass transition temperature ( $T_g$ ) below 20° C. The at least one organic quaternary ammonium salt may be present in an amount from 0.1 phr to 10 phr. The elastomeric composition may include at least one primary accelerator selected from thiazoles, sulphenamides, and/or xanthogenates. The elastomeric composition may be substantially free of additional secondary accelerators. The elastomeric composition may include at least one reinforcing filler, such as carbon black and/or silica. A tyre for a vehicle wheel includes at least one structural element including the elastomeric composition. The tyre may include a carcass structure, a belt structure, a tread band, and a pair of sidewalls. The at least one structural element including the elastomeric composition may be the tread band.